



**Figure 123. Results of DP-1 and DP-2**

*Neuse River Bridge: Pier – 19, Pier-34, and Pier-48*

Axial Statnamic load tests for Pier-19, Pier-34, and Pier-48 were performed to measure the bearing capacity of drilled shafts in the Neuse River Bridge project (May 21 to 28, 1997.) The river bottom soils in which the test shafts were installed consisted of a layer of very loose or very soft silts, sands and organic material from an elevation of -5(-1.5m) to -11 feet(3.35m). The length of socket in weathered rock ranged from 26 to 42 feet. The weathered rock consisted of siltstone and limestone, as shown in App. 5-A, v to vii.

Pier-19, Pier-34, and Pier-48 were constructed with an outer diameter of 49 inches (1250 mm), with 0.6 inch (15 mm) thick steel casing. The total shaft length was 108.2 ft. (33 m), 102.4 ft. (31.2 m), and 102.5 ft. (31.3 m), respectively. Table 43 and Figure 124 show the magnitude of the shaft resistance at maximum displacement obtained during testing and the measured load-displacement relationships, respectively.

**Table 43. Results of Pier-19, Pier-34, and Pier-48**

Shaft	Max. Shear Resist. (ksf)	Tip Resist.(ksf)	Max Load (kips)	Max. Displ.(in)
Pier-19	5.62	150.7	3057.4	0.35
Pier-34	5.74	39.9	2585.3	0.26
Pier-48	6.50	38.8	2787.6	0.32